CLAIMS

1. A method for controlling load in a telecommunication system comprising a network part (100, 114, 116, 340), at least one subscriber terminal (104) and a telecommunication connection (108) between the network part (100, 114, 116, 340) and the subscriber terminal (104), in which method

the telecommunication connection (108) is used for connection setup and data transfer,

the telecommunication connection (108) comprises a channel for relaying channel allocation requests transmitted by the subscriber terminal to the network part (100, 114, 116, 340),

characterized by controlling the telecommunication system load by adjusting the capacity of the channel used for relaying the channel allocation requests.

2. A method as claimed in claim 1, **characterized** by decreasing channel capacity when a base station system becomes overloaded, and when the load drops to a desired level, increasing the channel capacity.

3. A method as claimed in claim 1, **characterized** by configuring a logical packet associated control channel PCCCH for the resource of a packet data channel PDCH comprised by the radio connection (108),

which PDCH resource comprised by the logical PCCCH channel is divided into uplink resource and downlink resource,

which uplink resource is divided between the packet random access channel PRACH, a packet data traffic channel PDTCH and a packet associated control channel PACCH, and

which uplink resource, which is not fixedly configured as the PRACH channel, is dynamically allocated to the PRACH, PDTCH and PACCH channels.

4. A method as claimed in claim 3, **characterized** by indicating a resource part to be allocated to the PRACH channel by means of the downlink resources of the PCCCH channel and by relaying uplink state flag USF information to a radio path in each downlink radio block of the PDCH resource included by the logical PCCCH channel, and

the USF information of the downlink radio block having a certain predetermined idle mode value, whereby the next uplink radio block in turn is used as the PRACH channel.

5. A method as claimed in claim 3, **characterized** by indicating the resource part to be allocated to the PRACH channel by means of the PCCCH downlink resources,

relaying the uplink state flag USF information to the radio path in each downlink radio block of the PDCH resource included by the logical PCCCH channel,

the USF information of the downlink radio block having another value than a certain predetermined idle mode value, and

the USF information having such a value that the subscriber terminal (104) is unable to use the channel as the PRACH channel.

6. A method as claimed in claim 3, **characterized** by indicating the resource part to be allocated to the PRACH channel by means of the downlink resources of the PCCCH channel,

relaying the uplink state flag USF information to the radio path in each downlink radio block of the PDCH resource included by the logical PCCCH channel,

the USF information of the downlink radio block having another value than a certain predetermined idle mode value, whereby the uplink packet traffic of the PDTCH and the PACCH channels of the subscriber terminal (104) allocated to the PDCH resource concerned is controlled by the USF information, and

the USF information having such a value that the subscriber terminal (104) is unable to use the channel as the PRACH channel.

7. A method as claimed in claim 1, **characterized** by measuring continually the base station system's processor load or the signalling load between the base station (100) and the base station controller (114).

8. A method as claimed in claim 1, **characterized** by being utilized in the base station (100) and/or the base station controller (114).

9. A method as claimed in claim 1, **characterized** by primarily being employed in the base station (100) and/or the base station controller (114), to which a high PRACH capacity is configured.

10. A telecommunication system comprising a network part (100, 114, 116, 340), at least one subscriber terminal (104) and a telecommunication connection (108) between the network part (100, 114, 116, 340) and the subscriber terminal (104), in which telecommunication system

a base station system is arranged to use the telecommunication connection (108) for connection setup and data transfer,

the telecommunication connection (108) comprises a channel for relaying channel allocation requests transmitted by the subscriber terminal to the network part (100, 114, 116, 340),

characterized in that the telecommunication system is arranged to control load by adjusting the capacity of the channel used for relaying the channel allocation requests.

11. A telecommunication system as claimed in claim 10, **characterized** in that when the base station system becomes overloaded, the system is arranged to decrease PRACH channel capacity, and when the load drops to a desired level, the system is arranged to increase the PRACH channel capacity.

12. A telecommunication system as claimed in claim 10, **characterized** in that the system is arranged to configure a logical packet associated control channel PCCCH for the resource of a packet data channel PDCH comprised by the radio connection (108), which

PDCH resource comprised by the logical PCCCH channel is divided into uplink resource and downlink resource,

the uplink resources being divided between the PRACH channel, a packet data traffic channel PDTCH and a packet associated control channel PACCH, and which

uplink resource, which is not fixedly configured as the PRACH channel, is dynamically allocated to the PRACH, PDTCH and PACCH channels.

13. A telecommunication system as claimed in claim 12, **characterized** in that the system is arranged to indicate a resource part to be allocated to the PRACH channel by means of the downlink resources of the PCCCH channel,

to relay uplink state flag USF information to a radio path in each downlink radio block of the PDCH resource included by the logical PCCCH channel, and that

the USF information of the downlink radio block has a certain predetermined idle mode value, whereby the system is arranged to use the next uplink radio block in turn as the PRACH channel.

14. A telecommunication system as claimed in claim 12, **characterized** in that the system is arranged to indicate the resource part to be allocated to the PRACH channel by means of the downlink resources and relay the uplink state flag USF information to the radio path in each downlink radio block of the PDCH resources included by the logical PCCCH channel,

the USF information of the downlink radio block has another value than a certain predetermined idle mode value, and

the USF information has such a value that the subscriber terminal (104) is unable to use the channel as the PRACH channel.

15. A telecommunication system as claimed in claim 12, **characterized** in that the system is arranged to indicate the resource part to be allocated to the PRACH channel by means of the downlink resources of the PCCCH channel,

to relay the uplink state flag USF information to the radio path in each downlink radio block of the PDCH resource included by the logical PCCCH channel,

the downlink radio block USF information has another value than a certain predetermined idle mode value, whereby the system is arranged to control the uplink packet traffic of the PDTCH and the PACCH channels of the subscriber terminal (104) allocated to the PDCH resource concerned by the USF information, and

the USF information has such a value that the subscriber terminal (104) is unable to use the channel as the PRACH channel.

16. A telecommunication system as claimed in claim 10, **characterized** in that the system is arranged to measure continually the base station system's processor load or the signalling load between the base station (100) and the base station controller (114).